I CLAIM:

1. A photodetector array comprising a plurality of addressable pixels, each pixel comprising:

at least two photodiodes;

a switching circuit which allows switching of at least one of said photodiodes between a first circuit and a second circuit;

wherein said first circuit connects said at least two diodes in parallel, and said second circuit connects said at least one of said photodiodes in parallel with a photodiode of a neighboring pixel in the array, whereby said array is switchable between a high resolution and a low resolution pixel configuration.

2. The photodetector array of claim 1, wherein said switching circuit includes active semiconductor switching devices.

3. The photodetector array of claim 2 wherein said switching devices are field effect transistors.

4. The photodetector array of claim 3, each pixel further comprising an addressing circuit which enables readout from said pixel in response to an address input.

5. The photodetector array of claim 1, wherein said at least two photodiodes consist of two photodiodes.

6. The photodetector array of claim 1 further comprising control lines, coupled to said switching circuits to control said switching circuits;

and wherein said control lines are fabricated in a polysilicon layer.

7. The photodetector array of claim 6 wherein said control lines are disposed beneath a metallization layer which is electrically isolated from said control lines.

8. A photodetector array with selectable resolution, comprising:

A plurality of photodetectors;

a plurality of addressable interface circuits;

a switching circuit which configures neighboring ones of said photodetectors into pixels by summing at each pixel multiple photodetector signals into an aggregated pixel output;

wherein said switching circuit is electronically switchable to combine said photodetector signals according to at least two different selectable pixellization schemes with differing resolution.

9. The photodetector array of claim 8 wherein said switching circuit combines photodetector signals according to at least two different, electronically selectable configurations: a first configuration in which each pixel output is a sum of two neighboring photodiodes; and a second configuration in which each pixel output is a sum of at least three photodiodes.

10. The photodetector array of claim 9 further comprising a control input, coupled to said switching circuits to control said switching circuits;

and wherein said control input includes a polysilicon branch.

11. The photodetector array of claim 10 wherein said polysilicon branch disposed beneath a metallization layer which is electrically isolated from said control input.

12. A photodetector array, comprising a plurality of pixels;

wherein each pixel comprises an association of at least two subpixels;

and wherein said subpixels are switchably associated into at least two different grouping arrangements, to give at least two different selectable pixel configurations.

13. The photodetector array of claim 12, wherein said array is switchable between 1920 rows and 1080 rows.

14. The photodetector array of claim 13 wherein said array is switchable between 1080 and 720 columns.